

## ARTICLE 4

### FLOOD PLAIN MANAGEMENT

Section	Subject Matter
9-4.00	FINDINGS OF FACT
9-4.01	PURPOSE
9-4.02	METHODS OF REDUCING FLOOD LOSSES
9-4.10	DEFINITIONS
9-4.20	APPLICABILITY
9-4.30	BASIS FOR ESTABLISHING AREAS OF SPECIAL FLOOD HAZARD
9-4.40	COMPLIANCE
9-4.50	ABROGATION AND GREATER RESTRICTIONS
9-4.60	INTERPRETATION
9-4.70	WARNING AND DISCLAIMER OF LIABILITY
9-4.80	FLOOD PLAIN ADMINISTRATOR
9-4.90	DUTIES OF THE FLOOD PLAIN ADMINISTRATOR
9-4.100	DEVELOPMENT PERMIT REQUIREMENTS
9-4.110	GENERAL CONSTRUCTION STANDARDS
9-4.120	UTILITY STANDARDS
9-4.130	SUBDIVISION STANDARDS
9-4.140	MANUFACTURED HOME STANDARDS
9-4.150	RECREATIONAL VEHICLE STANDARDS
9-4.160	FLOODWAYS
9-4.170	COASTAL HIGH HAZARD AREAS

9-4.180	AVAILABILITY OF APPEAL
9-4.190	APPEAL AND VARIANCE DECISIONS
9-4.200	VARIANCE STANDARDS
9-4.210	SEVERABILITY

## ARTICLE 4

### FLOOD PLAIN MANAGEMENT

SEC. 9-4.00 FINDINGS OF FACT. The City Council has adopted this article, which may be referred to as the City of Hayward's Flood Plain Management Ordinance, to promote the public health, safety and general welfare of Hayward residents and property owners, implement the Cobey-Alquist Flood Plain Management Act (Water Code sections 8400 set seq. and amendments thereto) and comply with the eligibility requirements of the National Flood Insurance Program established pursuant to federal law (42 U.S.C. section 4001 et seq. and amendments thereto). The flood hazard areas of the City of Hayward are subject to periodic inundation which may result in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which can adversely affect the public health, safety, and general welfare. Such flood losses are caused by uses which are inadequately elevated, flood-proofed or protected from flood damage and by the cumulative effect of obstructions in areas of special flood hazards which increase flood heights and velocities and contribute to the flood loss.

SEC. 9-4.01 PURPOSE. It is the purpose of this article to promote the public health, safety, and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

- a. Protect human life and health;
- b. Minimize expenditure of public money for costly flood control projects;
- c. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- d. Minimize prolonged business interruptions;
- e. Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone, and sewer lines, streets and bridges located in areas of special flood hazard;
- f. Help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future blight areas caused by flood damage;
- g. Ensure that potential buyers are notified that property is in an area of special flood hazard; and
- h. Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

SEC. 9-4.02 METHODS OF REDUCING FLOOD LOSSES. To accomplish its purposes, this article includes methods and provisions which:

- a. Restrict or prohibit uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or flood heights or velocities;
- b. Require that properties vulnerable to floods, including facilities on such properties, be protected against flood damage at the time of initial construction;
- c. Control the alteration of natural flood plains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;
- d. Control filling, grading, dredging, and other development which may increase flood damage; and
- e. Prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas.

**SEC. 9-4.10 DEFINITIONS.** For the purpose of this article, certain words and phrases are defined and shall be construed as set out in this section. Any other words or phrases used in this article shall be interpreted so as to give them the meaning they have in common usage and to give this article its most reasonable application.

- a. Appeal. A request for a review of the enforcement or interpretation of any provision of this article.
- b. Area of Shallow Flooding. An area designated as a AO or AH zone on the Flood Insurance Rate Map (FIRM). The base flood depths range from one to three feet; a clearly defined channel does not exist; the path of flooding is unpredictable and indeterminate; and velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.
- c. Area of Special Flood Hazard. See 'Special Flood Hazard Area.'
- d. Base Flood. A flood having a one percent chance of being equaled or exceeded in any given year (also called the '100-year flood').
- e. Basement. Any area of the building having its floor subgrade, i.e. below ground level, on all sides.
- f. Breakaway Walls. Any type of walls, whether solid or lattice, and whether constructed of concrete, masonry, wood, metal, plastic, or any other suitable building material which is not part of the structural support of the building and which is designed to break away under abnormally high tides or wave action without causing any damage to the structural integrity of the building on which they are used or any buildings to which they might be carried by flood waters. A breakaway wall shall have a safe design loading resistance of not less than ten and no more than twenty pounds per square foot. Use of breakaway walls must be certified by a registered engineer or architect and shall meet the following conditions:
  - (1) Breakaway wall collapse shall result from a water load less than that which would occur during the base flood; and

- (2) The elevated portion of the building shall not incur any structural damage due to the effects of wind and water loads acting simultaneously in the event of the base flood.
- g. Coastal High Hazard Area. The area of special flood hazard extending from offshore to the inland limit of primary frontal dune along an open coast and any other area subject to high velocity wave action from storms or seismic sources. It is an area subject to high velocity waters, including coastal and tidal inundation or tsunamis. The area is designated on a Flood Insurance Rate Map (FIRM) as Zone V1-V30, VE or V.
- h. Development. Any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation, or drilling operations, or storage of equipment or materials.
- i. Encroachment. The advance or infringement of uses, plant growth, fill, excavation, buildings, permanent structures or development into a flood plain which may impede or alter the flow capacity of a flood plain.
- j. Federal Emergency Management Agency (FEMA). Refers to the federal agency, which administers the National Flood Insurance Program pursuant to 42 U.S.C. section 4001 et seq. and amendments thereto.
- k. Flood, Flooding or Flood Waters. A general and temporary condition of partial or complete inundation of normally dry land areas from (1) the overflow of inland or tidal waters, (2) the unusual and rapid accumulation or runoff of surface waters from any source, and/or (3) the collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in this definition.
- l. Flood Boundary and Floodway Map (FBFM). The official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated both the areas of flood hazard and the floodway.
- m. Flood Insurance Rate Map (FIRM). The official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.
- n. Flood Insurance Study (FIS). The official report provided by the Federal Insurance Administration that includes flood profiles, the FIRM, the Flood Boundary and Floodway Map, and the water surface elevation of the base flood.
- o. Flood Plain or Flood-Prone Area. Any land area susceptible to being inundated by water from any source (see definition of 'flood').

- p. Flood Plain Administrator. The Flood Plain Administrator is the Director of Public Works or his/her designee and shall administer, implement and enforce this article, including the grant or denial of a development permit required by this article.
- q. Flood Plain Management. The operation of an overall program of corrective and preventive measures for reducing flood damage, and preserving or enhancing, where possible, natural resources in the flood plain, including but not limited to emergency preparedness plans, flood control works, and flood plain regulations and open space plans.
- r. Flood Plain Regulations. Applicable federal and state regulations, this article and the following regulations: HMC Article 10-1, the Zoning Ordinance, which contains the flood plain zoning regulations; HMC Article 10-3, the Subdivision Ordinance; the building regulations contained in HMC Article 9-1 and the uniform building codes, adopted by the City of Hayward; special purpose ordinances, such as the grading and clearance regulations contained in HMC Article 10-8; health regulations, and other applications of police power. The term "Flood Plain regulations" also includes any combination of applicable federal, state and local regulations, which provide standards for the purpose of flood damage prevention and reduction.
- s. Flood proofing. Any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities and structures and their contents, consistent with the guidelines on dry and wet flood proofing, contained in FEMA Technical Bulletins TB1-93, TB 3-93, and TB 7-93, and amendments thereto.
- t. Floodway. The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot. This term is synonymous with the term 'regulatory floodway'.
- u. Functionally Dependent Use. A use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, but does not include long-term storage or regulated manufacturing facilities.
- v. Highest Adjacent Grade. The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.
- w. Historic Structure. Any structure that is:
  - (1) Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
  - (2) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

- (3) Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or
  - (4) Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:
    - (i) By an approved state program as determined by the Secretary of the Interior; or
    - (ii) Directly by the Secretary of the Interior in states without approved programs.
- x. Levee. A man-made structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control or divert the flow of water so as to provide protection from temporary flooding.
- y. Lowest Floor. The lowest floor of the lowest enclosed area in a structure, including the basement.
  - (1) An unfinished or flood resistant enclosure below the lowest floor that is usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; provided, that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements, including but not limited to the anchoring standards in subdivision 9-4.110 a., the construction material and construction method standard in subdivision 9-4.110 b., the wet flood proofing standard in subdivision 9-4.110 c.(3) of this article, and the standard for utilities in section 9-4.120.
  - (2) For residential structures, all subgrade enclosed areas in a special flood hazard area are prohibited, including below-grade garages and storage areas, as they are considered to be basements,
- z. Manufactured home. A structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. For flood plain management purposes, the term 'manufactured home' also includes a mobile home, park trailer, travel trailer, and other similar vehicles placed on a site for greater than 180 consecutive days and excludes a recreational vehicle.
- aa. Manufactured Home Park or Subdivision. A parcel (or contiguous parcels) of land divided into two or more manufactured home lots for sale or rent, including but not limited to a mobile home park.
- bb. Market Value shall be determined by estimating the cost to replace the structure in new condition and adjusting that cost figure by the amount of depreciation which has accrued since the structure was constructed. The cost of replacement of the structure shall be based on a square foot cost factor determined by reference to a building cost estimating guide recognized by the building construction industry. The amount of

depreciation shall be determined by taking into account the age and physical deterioration of the structure and functional obsolescence as approved by the flood plain administrator, but shall not include economic or other forms of external obsolescence. Use of replacement costs or accrued depreciation factors different from those contained in recognized building cost estimation guides may be considered only if such factors are included in a report prepared by an independent professional appraiser and supported by a written explanation of the differences.

- cc. Mean Sea Level. The National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which base flood elevations shown on a community's Flood Insurance Rate Map are referenced.
- dd. New Construction. For flood plain management purposes, 'new construction' means a structure for which the 'start of construction' commenced on or after the effective date of the applicable flood plain regulation and includes any subsequent improvements to such structure.
- ee. One Hundred Year Flood or 100-Year Flood. See "Base Flood."
- ff. Person. An individual person, firm, partnership, association or corporation, or agent thereof. Also includes the State of California, its agencies and political subdivisions.
- gg. Recreational Vehicle. Refers to a vehicle which is built on a single chassis, no more than 400 square feet when measured at the largest horizontal projection, designed to be self-propelled or permanently towable by a light-duty truck, and is designed for and used as a temporary living quarters for recreational, camping, travel, or seasonal use.
- hh. Regulatory Floodway. See "floodway."
- ii. Remedy a Violation. To 'remedy a violation' means to bring the structure or other development into compliance with state or local flood plain regulations, or, if this is not possible, to reduce the impacts of its noncompliance. Ways that impacts may be reduced include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of this article or otherwise deterring future similar violations, or reducing the federal financial exposure with regard to the structure or other development.
- jj. Riverine. A term which relates to or pertains to formation by or resembling a river (including tributaries), stream, brook, and similar bodies of water.
- kk. Sand Dunes. Naturally occurring accumulations of sand in ridges or mounds landward of the beach.
- ll. Special Flood Hazard Area (SFHA). An area in the flood plain subject to a one percent or greater chance of flooding in any given year, which is shown on an FHBM or FIRM as Zone A, AO, AI-30, AE, A99, AH, V1-V30, VE, or V.
- mm. Start of Construction. The date on which a building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement occurs within 180 days of the date on which the permit was



issued. Alternatively, the commencement of substantial improvements, where no building permit is necessary. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the state of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets, and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations, or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

- nn. Structure. A walled and roofed building, including, but not limited to, a gas or liquid storage tank, that is principally above ground, and a manufactured home.
- oo. Substantial Damage. Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.
- pp. Substantial Improvement. Any reconstruction, or improvement of a structure or other proposed development of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the start of construction. For the purposes of this definition 'substantial improvement' is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure. The term does not, however, include the following:
  - (1) Any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions; or
  - (2) Any alteration of a structure designated as a historic structure, which is either listed on the National Register of Historic Places, the State Inventory of Historic Places or is designated as a historic structure pursuant to HMC Article 10-11, the Historic Preservation Ordinance; provided that the alteration will not preclude the structure's continued designation as a "historic structure."
- qq. Variance. An application for relief from the requirements of this article, to enable construction or location of a structure in a manner that would otherwise be prohibited by this article.
- rr. Violation. The failure of a structure or other development to be fully compliant with this article. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required by this article, is presumed to be in violation until such time as that documentation is provided.
- ss. Water Surface Elevation. The height, in relation to the National Geodetic Vertical Datum (NGVD) of 1929, (or other datum, where specified) of floods of various

magnitudes and frequencies in the flood plains of coastal or riverine areas.

SEC. 9-4.20 APPLICABILITY. This article shall apply to all areas of special flood hazard within the jurisdiction of the City of Hayward.

SEC. 9-4.30 BASIS FOR ESTABLISHING AREAS OF SPECIAL FLOOD HAZARD. The areas of special flood hazard identified by the Federal Insurance Administration (FIA) of the Federal Emergency Management Agency (FEMA) in the most recent Flood Insurance Study (FIS), Flood Insurance Rate Maps (FIRM), Flood Boundary and Floodway Maps (FBFMs) dated February 9, 2000, and all amendments thereto shall be deemed to be a part of this article upon the adoption of a City Council resolution approving the use of such FIS, FIRM or FBFM. The FIS and attendant maps delineate the minimum areas to which this article applies and may be supplemented by studies for other areas which allow implementation of this ordinance, when the Flood Plain Administrator approves the use of such studies.

SEC. 9-4.40 COMPLIANCE. No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this article and other applicable regulations. Violations of any requirement of this article, including conditions and safeguards established in connection with conditions, shall constitute a misdemeanor. In addition, the City retains the discretion to take any lawful action which the City deems necessary to prevent or remedy any violation.

SEC. 9-4.50 ABROGATION AND GREATER RESTRICTIONS. This article is not intended to repeal, abrogate, or impair any existing easement, covenant, or deed restriction. However, where this article and another ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

SEC. 9-4.60 INTERPRETATION. In the interpretation and application of this article, all provisions shall be:

- a. Considered as minimum requirements;
- b. Liberally construed in favor of the governing body; and
- c. Deemed neither to limit nor repeal any other powers granted under state statutes.

SEC. 9-4.70 WARNING AND DISCLAIMER OF LIABILITY. The degree of flood protection required by this article is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This article does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This article shall not create liability on the part of the City of Hayward, the State of California, the Federal Insurance Administration or Federal Emergency Management Agency, or any of such agency's officers or employees, for any flood damage that results from reliance on this article or any administrative decision lawfully made thereunder.

SEC. 9-4.80 FLOOD PLAIN ADMINISTRATOR. The Director of Public Works, or his/her designee, is the Flood Plain Administrator. The Flood Plain Administrator is responsible for making determinations in accordance with this article, acting on all development permit applications and enforcing the requirements of this article.

SEC. 9-4.90 DUTIES OF THE FLOOD PLAIN ADMINISTRATOR. The duties and responsibilities of the Flood Plain Administrator include, but are not limited to:

- a. Permit review. The Flood Plain Administrator shall review all development permits pertaining to properties in the flood plain, to determine the following:
  - (1) Compliance with this article's requirements.
  - (2) That required state and federal permits have been obtained.
  - (3) That the site is reasonably safe from flooding.
  - (4) That the proposed development does not adversely affect the carrying capacity of the floodway. For purposes of this article, adversely affect means that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will increase the water surface elevation of the base flood more than one foot at any point.
- b. Use of Other Base Flood Data. When base flood elevation data has not been provided in accordance with Section 9-4.30, the Flood Plain Administrator shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a federal or state agency or other source, deemed necessary to administer Sections 9-4.110 through 9-4.160.
- c. Notification of Other Agencies. When a watercourse is to be altered or relocated, the Flood Plain Administrator shall also:
  - (1) Notify adjacent communities and the California Department of Water Resources prior to such alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration, Federal Emergency Management Agency; and
  - (2) Require that the flood carrying capacity of the altered or relocated portion of said watercourse is maintained.
- d. Documentation of Flood Plain Development. The Flood Plain Administrator shall also obtain, maintain and make available for public inspection the following:
  - (1) Any certification required by subdivisions 9-4.110 c.(1), c.(2) or c. (3) regarding compliance with lowest floor elevation and flood proofing requirements;
  - (2) The certified elevation required by subdivision 9-4.130 b., which contains subdivision standards;
  - (3) The certification required by subdivision 9-4.160 a., which pertains to floodway encroachments;
  - (4) The information required in subdivision 9-4.170 f., regarding coastal construction standards.

- e. Map Determinations. The Flood Plain Administrator is also authorized to make determinations and interpretations as to the exact location of the boundaries of the areas of special flood hazard. Where there appears to be a conflict between a mapped boundary and actual field conditions, grade and base flood elevations shall be used to determine the boundaries of the special flood hazard area. The person contesting the location of the boundary shall be given a reasonable opportunity to appeal an interpretation made pursuant to Section 9-4.180.
- f. Remedial Action. The Flood Plain Administrator also has the discretion to take action to remedy violations of this article pursuant to Section 9-4.40.

SEC. 9-4.100 DEVELOPMENT PERMIT REQUIREMENTS. A Development Permit shall be obtained before construction or development begins within any area of special flood hazard established pursuant to Section 9-4.30. Application for a Development Permit shall be made on forms furnished by the Flood Plain Administrator and may include, but not be limited to: plans in duplicate drawn to scale showing the nature, location, dimensions, and elevation of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities; and the location of the foregoing, and the following information:

- a. A Site Plan, which includes, but is not limited to, the following:
  - (1) All Proposed Structures: Spot Ground elevations at building corners and 20 foot or smaller intervals along the foundation footprint, or one foot contour elevations throughout the building site.
  - (2) Proposed locations of water supply, sanitary sewer, and utilities.
  - (3) If available, the base flood elevation from the FIS or FIRM.
  - (4) If applicable, the location of the regulatory floodway.
- b. Foundation design detail, which includes, but is not limited to, the following:
  - (1) Proposed elevation in relation to mean sea level, of the lowest floor, including basement, of all structures.
  - (2) For a crawl-space foundation, the location and total net area of foundation openings, as required in section 9-4.110 c. (3) and FEMA Technical Bulletins 1-93 and 7-93, and amendments thereto.
  - (3) For a foundation placed on fill, the location and height of fill and compaction to 95 percent using the Standard Proctor Test method.
- c. Proposed elevation in relation to mean sea level, to which any nonresidential structure will be flood proofed, as required in section 9-4.110 c. 2 and FEMA Technical Bulletin TB 3-93, and amendments thereto.
- d. All appropriate certifications listed in subdivision 9-4.90.d.; and
- e. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

SEC. 9-4.110 GENERAL CONSTRUCTION STANDARDS. In any area of special flood hazard, compliance with the following standards is required:

- a. Anchoring.
  - (1) All new construction and substantial improvements shall be adequately anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.
  - (2) All manufactured homes shall meet the anchoring standards of subdivision 9-4.140 b.
- b. Construction Materials and Methods. All new construction and substantial improvements shall be constructed utilizing methods and practices that minimize flood damage, including the following:
  - (1) Use flood resistant materials specified in FEMA Technical Bulletin TB 2-93 and amendments thereto.
  - (2) Utility equipment shall be resistant to flood damage.
  - (3) Electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
  - (4) Construction and substantial improvements to properties located within Zones AH and AO shall include adequate drainage paths around structures on slopes to guide flood waters around and away from proposed structures.
- c. Elevation and Flood proofing.
  - (1) Residential structures. The lowest floor in any new or substantial improvement of any residential structure shall meet the requirements specified below. In addition, when the structure is completed, a registered professional engineer or surveyor shall certify the elevation of the lowest floor and provide a copy of such certification to the Flood Plain Administrator, who shall review the adequacy of such certification in accordance with applicable requirements.
    - (i) Zone AO. In an AO zone, the lowest floor shall be elevated to a height which is elevated above the highest adjacent grade to a height which is at or above the depth number specified on the FIRM or at least two feet above the highest adjacent grade if no depth number is specified.
    - (ii) Zone A. In an A zone, the lowest floor shall be elevated to a level at or above the base flood elevation.
    - (iii) All other FIRM Zones. In all other zones, the lowest floor shall be

elevated to a height at or above the base flood elevation.

- (2) Nonresidential structures. The lowest floor in any new non-residential structure or substantial improvement of a non-residential structure, shall either be elevated to meet the requirements of subdivision c.(1) of this Section 9-4.110, or such structure, together with attendant utility and sanitary facilities shall meet the requirements specified in this subdivision c. (2) of Section 9-4.110. A registered professional engineer or architect shall certify compliance with such requirements and provide a copy of such certification to the Flood Plain Administrator.
  - (i) The lowest floor of a nonresidential structure, including the basement, shall be flood proofed so that the structure's walls located below the base flood level are substantially impermeable to the passage of water; and
  - (ii) Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.
- (3) Lowest enclosed areas used for parking or storage. New construction and substantial improvement of any fully enclosed area below the lowest floor used solely for parking of vehicles, building access or storage, shall be designed to automatically equalize hydrostatic flood forces on the exterior, if such areas are subject to flooding, by containing openings which allow for the entry and exit of floodwater in accordance with the guidelines in the FEMA Technical Bulletin TB-193 and TB7-93 and amendments thereto. Designs for meeting the requirements of this subdivision must be certified by a registered professional engineer as meeting such FEMA guidelines and as exceeding the following minimum criteria:
  - (i) Include a minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding; with the bottom of all openings no higher than one foot above grade.
  - (ii) Openings may be equipped with screens, louvers, valves or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.
- (4) Manufactured homes shall also meet the standards in Section 9-4.140.

#### SEC. 9-4.120 UTILITY STANDARDS.

- a. All new and replacement water supply and sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system and discharge from systems into flood waters.
- b. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

#### SEC. 9-4.130 SUBDIVISION STANDARDS.

- a. All preliminary subdivision proposals, including parcel map and lot line adjustment proposals, shall identify any special flood hazard area and the elevation of the base flood.
- b. All final subdivision plans will provide the elevation of proposed structure(s) and pads. If the site is filled above the base flood elevation, the lowest floor and pad elevation shall be certified by a registered professional engineer or surveyor and a copy of such certification provided to the Flood Plain Administrator.
- c. All subdivision proposals shall be consistent with the need to minimize flood damage.
- d. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage.
- e. All subdivisions shall provide adequate drainage to reduce exposure to flood hazards.

SEC. 9-4.140 MANUFACTURED HOME STANDARDS. All new, replaced and substantially improved manufactured homes shall meet the requirements of this section. Upon completion of the manufactured home structure, a registered professional engineer or surveyor shall certify the elevation of the lowest floor, including the basement, and provide a copy of the certification for the Flood Plain Administrator's review and verification. For any site located in a mobile home park, the Flood Plain Administrator shall also provide a copy of the verification to the Codes and Standards Division of the California Department of Housing and Community Development.

- a. Elevation and anchoring requirements. All manufactured homes which are placed or substantially improved within Zones A1-A30, AH, AE, V1-V30, V, and VE, on the sites listed below, shall be elevated on a permanent foundation such that the lowest floor is elevated to a level at or above the base flood elevation and shall be securely anchored to a permanent foundation system to resist flotation, collapse, or lateral movement. In addition, all manufactured homes which are placed or substantially improved within Zones V1-V30, V and VE shall also comply with the requirements contained in Section 9-4.170. The manufactured home sites which are subject to such requirements are as follows:
  - (1) A site located outside of a manufactured home park or subdivision.
  - (2) A site in a new manufactured home park or subdivision.
  - (3) A site which is part of an expansion of an existing manufacture home park or subdivision.
  - (4) A site in an existing manufactured home park or subdivision on a site upon which a manufactured home has incurred "substantial damage" as a result of a flood.
- b. Alternative requirements for certain existing sites. Any manufactured home which is to be placed or substantially improved on a site in an existing manufactured home park or subdivision within Zones A1-A30, AH, AE, V1-V30, V, or VE, which is not subject to the provisions of subdivision a. must be securely fastened to an adequately

anchored foundation system to resist flotation, collapse, and lateral movement. Such manufactured home shall also be elevated to meet one of the following elevation standards:

- (1) The lowest floor of the manufacture home is at or above the base flood elevation, or,
- (2) The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade.

SEC 9-4.150 RECREATIONAL VEHICLE STANDARDS.

- a. All recreational vehicles placed on sites within Zones A1-A30, AH, and AE will either:
  - (1) Be on the site for fewer than 180 consecutive days, and be fully licensed and ready for highway use – a recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions, or,
  - (2) Meet the development permit requirements of section 9-4.100 and the elevation and anchoring requirements for manufactured homes in section 9-4.140.
- b. Zones V1-V30, V, and VE. Recreational vehicles placed on sites within Zones V1-V30, V, and VE shall meet the requirements of subdivision (a) and section 9-4.170.

SEC. 9-4.160 FLOODWAYS. Within the areas of special flood hazard referenced in Section 9-4.30, certain areas are designated floodways (floodways), which are extremely hazardous areas due to the velocity of flood waters which carry debris, potential projectiles, and erosion potential. Accordingly, the following provisions apply to construction and improvements located in or near a floodway area:

- a. Prohibited Encroachments. All encroachments, including fill, new construction, substantial improvement, and other development are prohibited, unless a determination is made that such encroachment will not endanger life, will not significantly restrict the carrying capacity of the floodway, and a registered professional engineer provides a certification that such encroachment will not result in an increase in the base flood elevation level during the occurrence of the base flood discharge.
- b. Additional Requirements. If subdivision a. is satisfied, all new construction and substantial improvements shall comply with other applicable flood hazard reduction provisions of Section 9-4.110 through 9-4.170.

SEC. 9-4.170 COASTAL HIGH HAZARD AREAS. Within coastal high hazard areas established pursuant to Section 9-4.30, the following standards shall apply:

- a. All new construction and substantial improvement shall be elevated on adequately



anchored pilings or columns and securely anchored to such pilings or columns so that the lowest horizontal portion of the structural members of the lowest floor (excluding the pilings or columns) is elevated to or above the base flood elevation. The pile or column foundation and structure attached thereto shall be anchored to resist flotation, collapse, and lateral movement due to the effects of wind and water loads acting simultaneously on all building components. Water loading values used shall be those associated with the base flood. Wind loading values used shall be those required by the applicable building code standards.

- b. All new construction shall be located on the landward side of the reach of mean high tide.
- c. The space below the lowest floor in any new construction and substantial improvement shall be free of obstructions or constructed with breakaway walls. Any temporarily enclosed space in such area shall not be used for human habitation and will be usable solely for parking of vehicles, building access or storage.
- d. Fill shall not be used for structural support of buildings.
- e. Man-made alteration of sand dunes which would increase potential flood damage is prohibited.
- f. The Flood Plain Administrator shall obtain and maintain the following records:
  - (1) Certification by a registered engineer or surveyor that a proposed structure complies with subdivision a.
  - (2) The elevation (in relation to mean sea level) of the bottom of the lowest floor (excluding pilings or columns) of all new and substantially improved structures, and whether such structures contain a basement.

SEC. 9-4.180 AVAILABILITY OF APPEAL. Any affected property owner, who believes that the Flood Plain Administrator has made an error as to any requirement, decision, or determination as to the administration or enforcement of this article, may file a written notice of appeal within ten days after the Flood Plain Administrator has provided notice of such action. Any notice of appeal filed pursuant to this section shall identify the appellant, describe the basis for the appeal and shall be filed with the City Clerk. Within thirty days thereafter, the City Manager shall either render a written decision on such appeal or refer such appeal to the City Council. The City Manager's decision may be further appealed to the City Council by filing a notice of appeal within ten days after notice of the City Manager's decision. The City Council shall hold a public hearing on the appeal within sixty days after the filing of the notice of appeal and issue its written decision after the close of the public hearing. The City Council's appeal decision shall be final when it is rendered.

SEC. 9-4.190 APPEAL AND VARIANCE DECISIONS. The decision maker on all matters and determinations made pursuant to this article, except a variance, shall be the Flood Plain Administrator. The decision maker as to any variance application shall be the City Council, which shall hold a public hearing and act on a variance application within the time periods contained in section 9-4.180. The following procedures, conditions, and considerations shall apply to consideration of a Development Permit, appeal or variance.

- a. Scope of Review. The decision maker shall consider all technical evaluations, the standards referenced in this article and other relevant information.
- b. Upon consideration of all relevant factors, the decision maker may attach such conditions to the granting of a Development Permit or a variance deemed necessary to carry out the purposes of this article.
- c. The Flood Plain Administrator shall maintain the records of all Development Permit and appeal actions and actions on variances.
- d. If a variance is granted which permits a structure to be built with a lowest floor elevation below the regulatory flood elevation, the Flood Plain Administrator shall provide written notice to the variance applicant which states that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation. The Flood Plain Administrator shall also record a copy of the notice of variance approval with the Alameda County Recorder so that it appears in the chain of title of the affected parcel of land.
- e. The Flood Plain Administrator shall further report any variance approved pursuant to this article in the City of Hayward's biennial report to the State of California Department of Water Resources and Reclamation Board, as well as the Federal Insurance Administration and Federal Emergency Management Agency.

SEC. 9-4.200 VARIANCE STANDARDS.

- a. Nature of Variances. The City Council may consider a variance for a property with physical characteristics so unusual that compliance with this article's requirements would create an exceptional hardship to the applicant or the surrounding property owners. The characteristics which form the basis for a variance request must be unique to the land on the property which is the subject of the variance application, not to the proposed structure or its inhabitants or property owners. In addition, such characteristic must not be shared by any adjacent parcel.
- b. Historic Sites and Structures. A variance may be issued for the repair, rehabilitation, or restoration of structures listed in the National Register of Historic Places or the State Inventory of Historic Places, upon a determination that the proposed repair, rehabilitation or restoration will not preclude the structure's continued designation as an historic structure.
- c. Property Located in a Designated Floodway. A variance shall not be approved for a property in any designated floodway if the proposed improvement or structure would result in any increase in flood levels during the base flood discharge. Approval of a variance for a property in a designated floodway also requires the consent of the State Department of Water Resources or Reclamation Board, pursuant to Water Code section 8414.2 and amendments thereto.
- d. Extent of Variance. A variance shall only be issued upon a determination that the variance from the requirements of this article is the minimum relief necessary to afford relief, after considering the potential flood hazard and other consequences of the variance approval.

- e. **Size of Property.** The size of the property shall also be considered in any variance application as follows:
- (1) **Certain Lots Containing No More Than One-Half Acre.** As a rule, a variance may be issued for new construction only if the lot is no more than one-half acre, where the property is contiguous to and surrounded by lots with existing structures constructed below the base flood level, based on a consideration of all relevant factors and the adoption of the findings required by subdivision g.
  - (2) **Certain Lots Containing More than One-Half Acre.** Greater technical justification shall be required to approve a variance which contains more than one-half acre.
- f. **Scope of Review.** The City Council shall consider technical evaluations pertaining to the variance and all relevant factors, including the following factors:
- (1) The danger that materials may be swept onto other lands to the injury of others;
  - (2) The danger of life and property due to flooding or erosion damage;
  - (3) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner and future owners of the property;
  - (4) The importance of the services provided by the proposed facility to the community;
  - (5) The necessity to the facility of a waterfront location, where applicable;
  - (6) The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
  - (7) The compatibility of the proposed use with existing and anticipated development;
  - (8) The relationship for the proposed use to the comprehensive plan and flood plain management program for that area;
  - (9) The safety of access to the property in time of flood for ordinary and emergency vehicles;
  - (10) The expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters expected at the site; and
  - (11) The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water system, and streets and bridges.
- g. **Variance Findings.** The City Council may approve a variance if the City Council determines there is good and sufficient cause, based on the evidence presented, and

makes all of the following findings:

- (1) The land which is the subject of the variance has unique characteristics not shared by the land on adjoining properties.
  - (2) The failure to grant the variance would result in exceptional hardship to the applicant.
  - (3) The granting of a variance will not result in increased flood height, additional threats to public safety, extraordinary public expense, creation of a nuisance or detrimental impact on persons or property; and will not conflict with existing local laws or ordinances.
  - (4) The California Department of Water Resources or Reclamation board has consented to a variance, as required by Water Code section 8414.2, from this article's regulations for a designated floodway area.
- h. Additional Variance Findings for a Development Necessary to Conduct a Functionally Dependent Use. A variance may be issued for new construction and for other Development Necessary for the Conduct of a Functionally Dependent Use if the structure or other development is protected by methods that minimize flood damage during the base flood, and the approval of the requested variance will not result in a threat to public safety or create a public nuisance.

SEC. 9-4.210 SEVERABILITY. This article and the various parts thereof are hereby declared to be severable. Should any section of this article be declared by the courts to be unconstitutional or invalid, such decision shall not affect the validity of the article as a whole, or any portion thereof other than the section so declared to be unconstitutional or invalid.